

## REMARKS

Applicant has carefully studied the outstanding Official Action mailed on November 2, 2007. This response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

Applicants wish to express their gratitude to Examiner Nguyen and Supervisor Hindenburg for the courtesy of a telephone interview with their representative David Klein, Registered Patent Agent 41118, on February 27, 2008.

In the interview, the prior art, particularly Borkan, was discussed as well as the language of claim 1. Arguments presented in the interview are brought hereinbelow.

Claims 1-7 stand rejected under 35 USC §103(a) as being unpatentable by Garfield et al. (US 6816744) in view of Borkan (US 6662053), further in view of Fuchs (US 5747996).

Regarding Borkan, Examiner states:

Applicant contends that Borkan does not teach displaying the position of the simulator electrodes in conjunction with other pertinent data. However, it is noted that Borkan discloses that “the display may show overlays of an image of the desired electrode position and/or movement on an x-ray or fluoroscopic image.” (Col.3: 1-14 and Col.5: 10-21). The electrode position is thus displayed in conjunction with an x-ray or fluoroscopic image, which constitutes pertinent data. Furthermore, the prior art is replete with examples of displays that show multiple types of data, which includes position data along with other types of data. For example, Varghese et al (US Pat No. 20040210136) discloses a system for monitoring cervical and uterine data wherein the display shows multiple types of data in conjunction with each other, best seen in Figure 5.

This is respectfully traversed. Borkan does not teach displaying the position of the simulator electrodes in conjunction with other pertinent data. Rather a careful reading of Borkan reveals that Borkan displays the position of the electrodes alone and not in conjunction with any thing else.

Quoting col. 2, 19-33: “Also, the stimulator may measure physical or physiological parameters and modifies the stimulation pulse for each electrode defined by the parameter data as a function of the measured parameters. The measured parameters may include one of the following: EMG, EKG, or EEG measurements. The measurement circuit may include

chemical or biochemical sensors. The stimulator includes a signal input and modifies the stimulation pulses as a function of input signals on the signal input. The input signals may include processed audio or visual signals. The stimulator may determine the position of the electrode from the measured parameters and modifies the stimulation pulses as a function of the determined position. A display is provided for showing the determined position.”

Col. 3, 1-14: “Additionally, the relative position of the electrodes to the desired tissue to be stimulated may be determined using the measured parameters. The determined electrode's relative position may be displayed. The display may show overlays of an image of the desired electrode position and/or movement on an x-ray or fluoroscopic image. The system provides feedback to a physician as the electrode is moved in real time.”

Col. 5, 10-21: “Additionally, the relative position of the electrodes to the desired tissue to be stimulated may be determined using the measured parameters. The stimulation pulses may be modified as a function of the relative position. The measuring may include EMG measurements of specific muscles. The stimulation pulses are modified to determine the relative position of one or more of the individual electrodes. The determined electrode's relative position may be displayed. The display 27 may show overlays an image of the desired electrode position and/or movement on an x-ray or fluoroscopic image. The system provides feedback to a physician as the electrode is moved in real time.”

In all of the above, it is clear that Borkan exclusively displays the electrode position; not the electrodes together with something else. Even in col. 5, the passage “The display 27 may show overlays an image of the desired electrode position and/or movement...” clearly means the display 27 only displays the movement of the electrodes, that is, successive positions of the electrodes, and no other parameters.

In addition, in contrast to the present invention, Borkan has nothing to do with displaying three-dimensional positions of the EMG sensor. Although Borkan mentions using EMG sensors, it is only from an external monitor and has nothing to do with the claimed invention. Quoting from Borkan col. 5, lines 5-9: “The measured parameters may include one of the following: EMG, EKG, or EEG measurements. Information may be obtained from at least one of pulmonary, cardiac or neuro monitors; and the stimulation pulses are modified as a function of the information and measured parameters”.

In addition, it is respectfully pointed out that just because displaying different kinds of data has been done before does not in any way make the claimed invention obvious. It is tantamount to saying that the prior existence of nuts and bolts makes any machine obvious, which the Examiner agrees is not the case. Rather it is clear that a novel way of presenting

data should be recognized as novel and unobvious. It is analogous to Osborne Reynolds coming up with the dimensionless Reynolds number in fluid dynamics back in 1883. It is the ratio of inertia forces to viscous forces in a flowing fluid. Before him, inertia forces and viscous forces were well known, but no one realized that grouping the numbers in a special way to arrive at a dimensionless number would provide insight to the type of flow (laminar or turbulent). Here, too, displaying different kinds of data has been done before but no prior art exists that displays electrical muscular activity signals as sensed by the EMG sensor(s) and the three-dimensional positions of the EMG sensor(s) at the same time. As stated at the top of page 2 of the specification, the “invention may have many applications, such as but not limited to, prevention of premature birth, measuring and monitoring effectiveness of labor contractions, and research in obstetrics and gynecology”. The unique display of information is a new and non-obvious tool in these fields. The inventors presented the claimed technique and system at The SMFM (Society for Maternal-Fetal Medicine) 28th Annual Meeting Highlights, January 28 – February 2, 2008, Dallas, Texas, found at the site:

<http://www.smfm.org/attachedfiles/SMFM28highlights.pdf>

The presentation made at the conference was awarded as best presentation in PTL (pre-term labor). No one thought before that presenting electrical muscular activity signals as sensed by the EMG sensor(s) and the three-dimensional positions of the EMG sensor(s) at the same time could dramatically improve prediction of whether pre-term labor turns into pre-term or full-term delivery.

Accordingly, the combination of Garfield et al., Borkan and Fuchs does not teach or contemplate utilizing the position sensor to provide an output and display of said electrical muscular activity signals and their three-dimensional positions at the same time, as claimed in the instant application.

Accordingly, claims 1-7 are deemed allowable. Claim 8 has been added and is also deemed allowable.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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